

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF MICHIGAN  
SOUTHERN DIVISION

CONSUMERS ENERGY COMPANY )  
and DTE ELECTRIC COMPANY, )  
Plaintiffs, ) Case No.  
v. )  
TOSHIBA AMERICA ENERGY )  
SYSTEMS CORPORATION and )  
TOSHIBA CORPORATION, )  
Defendants. )

**COMPLAINT**

Plaintiffs Consumers Energy Company (“Consumers Energy”) and DTE Electric Company (“DTE”), by and through their attorneys, hereby set forth their Complaint against Defendants Toshiba America Energy Systems Corporation (“Toshiba”) and Toshiba Corporation (“Toshiba Parent”), and state as follows:

**INTRODUCTION**

1. This lawsuit stems from Toshiba’s material and ongoing failures to execute a major overhaul and upgrade of the Ludington Pumped Storage Plant. The Ludington Plant is one of the largest hydroelectric plants of its type in the world. It is a critical component of Michigan’s clean energy infrastructure.

2. Consumers Energy and DTE jointly own the Ludington Plant and are sometimes referred to collectively as the “Owner” in contract documents.

Consumers Energy and DTE paid Toshiba hundreds of millions of dollars to overhaul and upgrade the Ludington Plant. In exchange, Toshiba promised, among other things, to provide engineering, construction, and other services that would produce refurbished hydroelectric turbines that would be free of defects and obsolete components, enable the Plant to have a 30-year service life, and require reduced maintenance. Those promises were integral to the reliable performance of the Ludington Plant and the overall business case for the project.

3. Toshiba, however, has failed to uphold its end of the bargain. Toshiba has repeatedly delivered defective work and services affecting key components of the hydroelectric turbines, including the discharge ring extensions, main shaft seals, and motor-operated disconnect switches. Those defects violate multiple contractual provisions and warranties. The defects also make the promised 30-year service life impossible for the Plant and will require more frequent (rather than reduced) maintenance. Toshiba has also failed to meet numerous contractual deadlines.

4. Despite numerous requests, Toshiba has refused to rectify its defective work. Instead, Toshiba has told Consumers Energy and DTE to use defective components “as is,” and to wait and see if or when the components fail, which is contrary to Toshiba’s obligations to deliver defect-free work and repair defects at the Owner’s request. At other times, Toshiba has attempted repairs, but it has used

a trial-and-error approach that has introduced even more defects and problems. Other purported repairs by Toshiba have been mere stopgaps that do not address the underlying defects. In other instances, Toshiba has simply ignored Consumers Energy's and DTE's requests to make repairs or provide analysis of defects. In short, it has become clear that Toshiba is unwilling or unable to deliver the defect-free work it promised.

5. Toshiba has violated its obligations in many other respects. Toshiba has repeatedly missed contractual deadlines to complete its work, has defectively designed, constructed, and installed key components, has failed to correct defects, and has violated standards and codes incorporated into the contract, to name a few.

6. Toshiba's failures have injured Consumers Energy, DTE, and the Ludington Plant. As an example, because of unaddressed defects in Toshiba's work, at least five of the six hydroelectric turbine generators that Toshiba was supposed to overhaul will not meet the 30-year service life specification that was a fundamental objective of the project. Even though those five turbine generators were only recently placed back in service following Toshiba's work, they already suffer from cracking and degradation in a crucial component. Toshiba has failed to correct those deficiencies despite more than a year of repeated demands from Consumers Energy and DTE.

7. Toshiba's failures have already caused substantial damage to Consumers Energy and DTE and will require substantial resources to correct. Consumers Energy and DTE bring this suit to recover those damages, require Toshiba and Toshiba Parent to pay for the work that is needed to rectify Toshiba's defective performance, and for all other appropriate relief.

### **PARTIES**

8. Consumers Energy is a public utility providing electricity and/or natural gas to millions of residential and business customers in every county of Michigan's Lower Peninsula. Consumers Energy is the principal subsidiary of CMS Energy Corporation, which is a publicly traded company.

9. Both Consumers and the CMS Energy Corporation are corporations organized under the laws of Michigan and have their principal places of business in Jackson, Michigan.

10. DTE is a public utility that supplies electricity and/or natural gas to millions of residents and businesses in Michigan, including in the Detroit metro area. DTE is a subsidiary of the DTE Energy Company, a publicly traded company.

11. Both DTE and the DTE Energy Company are incorporated under the laws of Michigan and have their principal places of business in Detroit, Michigan.

12. Defendant Toshiba is a United States-based subsidiary of the Japanese corporation of the same name. Toshiba is a Delaware corporation with its principal place of business in West Allis, Wisconsin.

13. Defendant Toshiba Parent is the parent company of Toshiba. Toshiba Parent is a corporation organized under the laws of Japan and has its principal place of business in Tokyo, Japan.

#### **JURISDICTION AND VENUE**

14. This Court has jurisdiction over this matter pursuant to 28 U.S.C. § 1332 because this is a civil action between corporations that are citizens of different states or a foreign state, and the amount in controversy exceeds the sum or value of \$75,000.

15. Venue is proper in this Court pursuant to 28 U.S.C. § 1391 because a substantial part of the actions giving rise to these claims occurred in this judicial district.

16. Venue is also proper pursuant to 28 U.S.C. § 1391 because Toshiba and Toshiba Parent are subject to this Court's personal jurisdiction with respect to this action.

17. Toshiba Parent also consented to venue and personal jurisdiction in this Court in the Parent Guaranty, which is further described below.

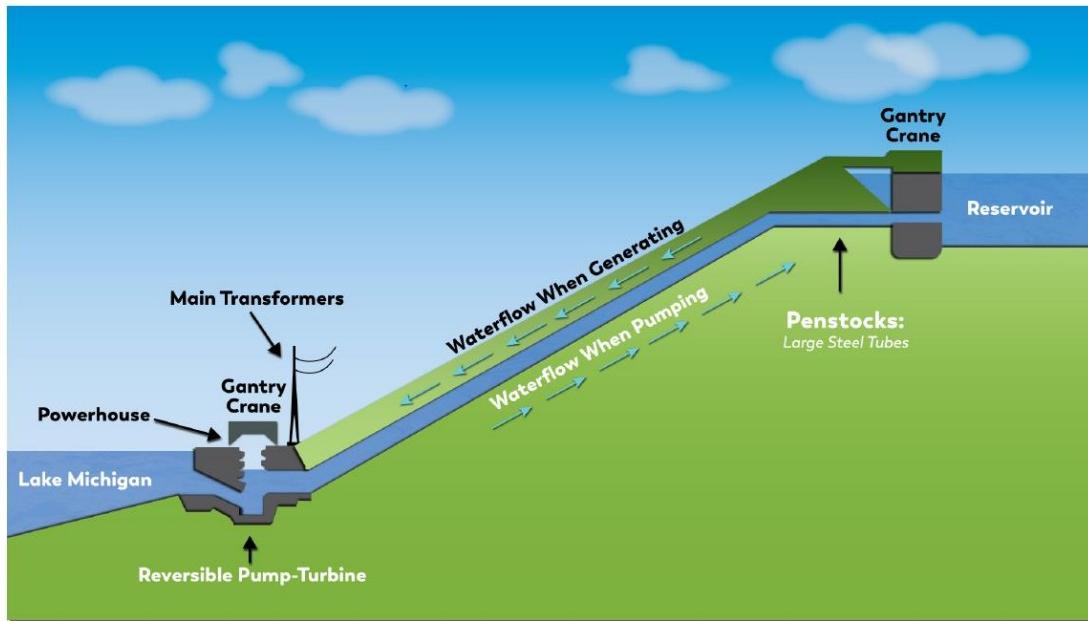
## **FACTS**

### **A. The Ludington Plant Is Vital To Michigan's Electric Infrastructure.**

18. The Ludington Plant plays an important role in Michigan's management of demand for electricity, its transition to clean energy, and Consumers Energy's and DTE's ability to provide reliable and cost-effective electricity to residents and businesses.

19. The Ludington Plant is one of the largest pumped storage plants in the world. A pumped storage plant works by using hydroelectric pump-turbines to pump water uphill into a reservoir during periods of low demand for electricity, and then reversing the system during periods of high demand by allowing the stored water to flow downhill and spin the pump-turbines, generating electricity. In this way, a pumped storage plant acts as an enormous battery that can store excess power when it is not needed and release the power when it is needed.

20. A simplified graphical depiction of the Ludington Plant is set out below as Figure 1:



21. The Ludington Plant is located in Ludington, Michigan, on the shore of Lake Michigan.

22. The Ludington Plant began operating in 1973, with an initial license from the Federal Energy Regulatory Commission (“FERC”) to operate until 2019.

23. When it was constructed, the Ludington Plant was the largest pumped storage system in the world and an engineering marvel. The American Society of Civil Engineers recognized the Ludington Plant as one of the top civil engineering projects of the 20th century.

24. The Ludington Plant operates by pumping water from Lake Michigan up to a reservoir more than 300 feet above the lake. The reservoir holds 27 billion gallons of water and has a surface area of 840 acres—more than a square mile. During periods of high electric demand, the Ludington Plant allows water to flow

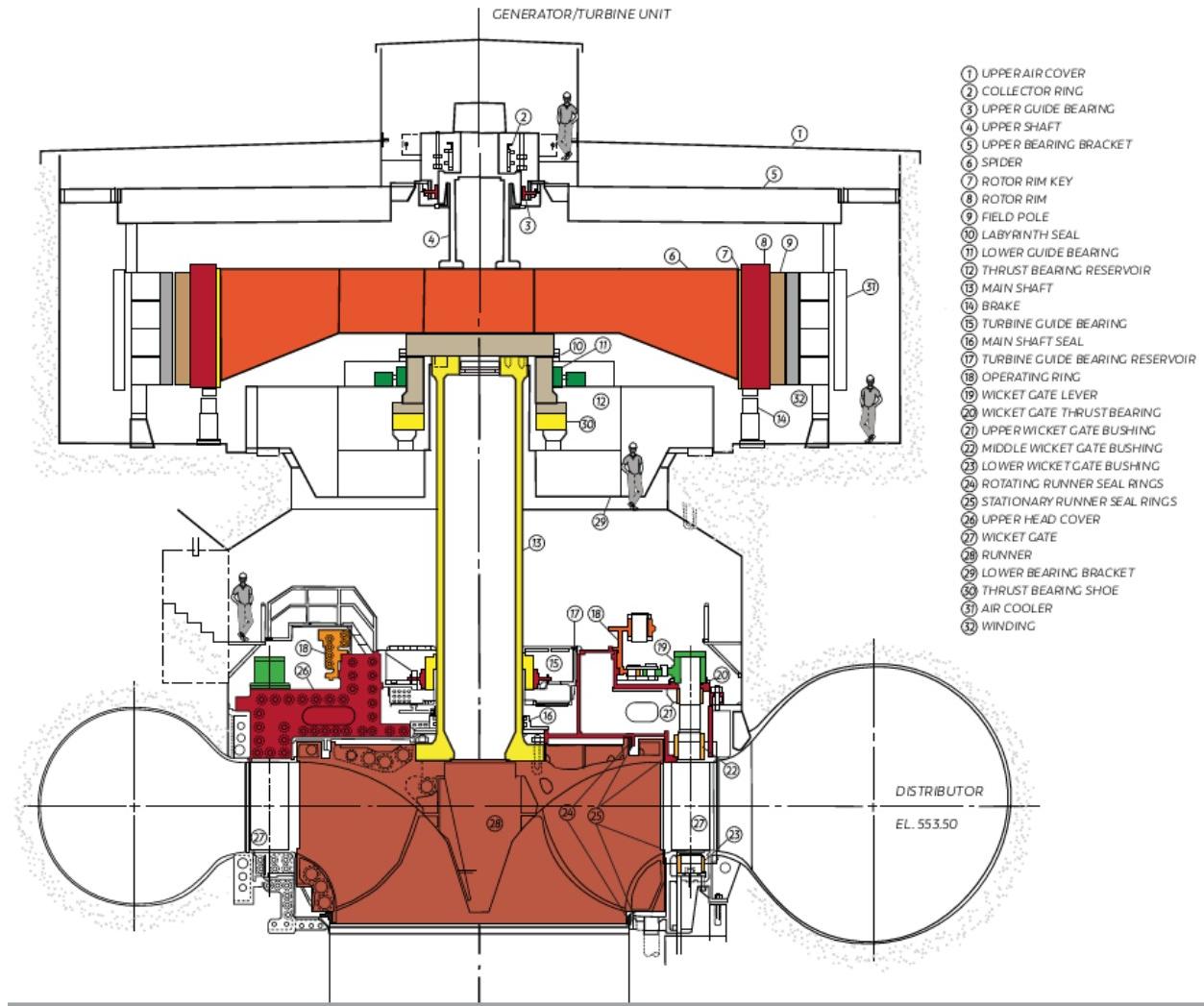
from the reservoir back down to Lake Michigan, turning the Plant's turbines and generating electricity.

25. The Ludington Plant can generate more than 2,000 megawatts of electricity, which is enough power to serve more than 1.4 million people.

26. The Ludington Plant consists of six hydroelectric pump-turbines that can each independently pump water and generate electricity. These six pump-turbines are each referred to as "Units." Each Unit has a large ring of turbine blades—referred to as a "runner"—fitted to a rotating main shaft. Each runner weighs more than 300 tons.

27. As water flows from the reservoir down through the turbine, the runner and main shaft rotate, which in turn rotates a motor generator. The motor generator converts the rotation into electricity when in generating mode. The motor can also be reversed, using power from the electric grid, to draw water from Lake Michigan and fill the reservoir when in pumping mode.

28. Each hydroelectric turbine is approximately five stories tall, with most of the equipment placed underground and below the water level of Lake Michigan. A graphical cross-section set out here as Figure 2 is provided to illustrate the general scale and layout of each turbine:



29. The Ludington Plant saves Michigan customers millions of dollars by generating cost-effective electricity to meet high demand. The Ludington Plant also contributes more than \$11 million annually to state and local tax revenues.

30. The Ludington Plant is integral to Consumers Energy's, DTE's, and Michigan's plans to diversify energy portfolios and increase clean energy sources.

31. Renewable and clean energy sources, such as solar and wind energy, are considered intermittent generating resources. The Ludington Plant promotes and enables greater use of renewable resources because of its ability to store excess electricity produced during periods of low demand and release that stored power during periods of high demand.

32. The Ludington Plant's ability to store excess electric power also reduces the need for traditional, fossil-fueled plants to be cycled more heavily during high demand periods. This is another way the Ludington Plant serves to provide reliable electricity for Michigan residents while also reducing greenhouse gas emissions in Michigan.

33. The Ludington Plant can also begin generating electricity almost immediately, and on demand, unlike many other generating facilities, making it an important resource for power restoration efforts in the event of an emergency.

**B. Toshiba Contracts To Perform Overhaul And Upgrade Work That Is Essential To The Ludington Plant's Future.**

34. In the mid-2000s, Consumers Energy and DTE began planning for an overhaul and upgrade of the Ludington Plant in order to extend the operating life of the Plant in tandem with the planned renewal of the Plant's FERC license that was set to expire in 2019.

35. Consumers Energy and DTE had four major goals for the overhaul and upgrade: (a) extending the service life of the Ludington Plant for at least another 30 years; (b) reducing the frequency and duration of Plant outages required for maintenance; (c) increasing the Plant's generating efficiency; and (d) increasing the Plant's generating capacity by approximately 50 megawatts per Unit.

36. Consumers Energy and DTE conducted a competitive bidding process for the overhaul and upgrade work. Each bidding contractor created and tested a design for a new and more efficient turbine runner for each Unit as part of a design process funded by Consumers Energy and DTE.

37. At the conclusion of that competitive bidding process, Consumers Energy and DTE selected Toshiba International Corporation as the contractor to perform the overhaul and upgrade.

38. Consumers Energy and DTE selected Toshiba International Corporation, in part, because of its claimed knowledge and experience with pumped-storage hydroelectric plants in general and with plants designed by the Ludington Plant's original designer and utilizing the same pump-turbines and motor generators.

39. Toshiba touts itself as a preeminent technology leader in the North American turbine and generator marketplace, "providing cost-effective, timely, and sustainable solutions" to keep plants "running longer."

40. In January 2011, Consumers Energy, DTE, and Toshiba International Corporation executed the Ludington Plant Engineering, Procurement, & Construction Contract for Units 1 through 6 Turbine Generator Overhaul, effective as of October 15, 2010, which has since been amended by ten contract change orders (as amended, the “Contract”).

41. The Contract includes a set of documents with specified performance requirements—referred to as the Conformed Contract Specifications (“Specifications”). (Excerpts of the Contract are attached hereto as Exhibit A.)<sup>1</sup>

42. On April 1, 2015, with the consent of Consumers Energy, DTE, and Toshiba Parent, Toshiba International Corporation assigned the Contract, including all its obligations, to Toshiba. (The Assignment is attached hereto as Exhibit B.)

43. In parallel with the overhaul and upgrade work, Consumers Energy and DTE applied for and received a new 50-year FERC license for the Ludington Plant spanning from 2019 to 2069.

44. As of the most recent contract change order, the total price paid to Toshiba under the Contract is more than \$500,000,000.00. (Contract § IV.1A, as amended by CCO10(4).)

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<sup>1</sup> The complete Contract, including appendices, is voluminous. All parties have complete copies of the Contract.

**C. The Contract Requires Toshiba To Provide Services To Engineer And Construct An Overhauled And Upgraded Plant With A 30-Year Service Life.**

45. In the Contract, Toshiba agreed to a comprehensive set of requirements for its work on the Ludington Plant overhaul and upgrade project.

46. Toshiba's work under the Contract includes, but is not limited to, "all of the engineering, manufacturing, procurement, transportation, and field work necessary for a *complete overhaul* of the [Ludington Plant's] pump-turbines, motor generators . . . and the major electrical, and mechanical equipment." (Specifications Part Two Technical Requirements ("TR"), § 3.0, emphasis added.)

47. Toshiba agreed to meet specific requirements for the quality and timeliness of its work. For example, the Contract provides:

Section I.1—[Toshiba] agrees to perform and complete, in a *good, substantial, workmanlike and approved manner within the time hereinafter specified* and in accordance with terms, conditions and provisions of this Contract, all of the work described in Section III . . . and otherwise in the Contract . . .

Section II.GC15(j)—The [w]ork shall be executed in a *workmanlike manner by qualified, careful, and efficient mechanics in strict accordance with the Contract, Drawings and Specifications*, or subsequent modifications thereof.

(Emphases added.)

48. The Contract further requires that Toshiba return the Ludington Plant to "*as nearly an as new condition as possible*" and enable each Unit to operate

reliably and efficiently for a service life of at least 30 years with only minimal routine maintenance during planned periodic outages. (TR, §§ 1.0, 1.7, 3.0 (emphasis added); *see also, e.g.*, Specifications Part Two Technical Specification (“TS”) ME-11450.4, §§ 1.5, 3.1.1.) For example, the Contract provides:

TR, § 1.7.1—It is the parties’ understanding that the [w]ork performed for each of the Units shall be designed and otherwise performed in such manner as will allow the Units to be capable of operating according to [Toshiba’s] recommended operation and maintenance manuals provided pursuant to this Contract without the need of another Overhaul, as described herein, ***for at least thirty (30) years*** from Unit Final Acceptance of the applicable Unit.

TR, § 1.0—It is expected that the components, items of equipment, materials, and services provided by [Toshiba] . . . shall enable the overhauled and upgraded Plant to operate efficiently and reliably for the required service life with only minimal routine maintenance. . .

TR, § 3.0—It is the Owner’s expectation that, following the Final Completion, the Units, in its rehabilitated and upgraded condition, shall be capable of operating efficiently and reliably with only one more (the third) round of planned Major Unit Overhauls between the end of the current license (year 2019) and the end of the new license in year 2069 (for a fifty (50)-year new license period); *i.e., a minimum thirty (30)-year service life would be required and with only routine planned periodic outages . . .*

(Emphases added.)

49. The Contract also mandates that each overhauled and upgraded Unit be able to operate for three years between planned periodic outages instead of the pre-

overhaul two-year cycle between planned periodic outages. (TR, §§ 1.7.1, 1.7.2, 1.7.3, 3.4.2.2.)

50. The Contract further provides that Toshiba's work must improve the Ludington Plant's generating and pumping capabilities, efficiency, maintainability, availability, reliability, and its overall operation, among other things. (TR, §§ 1.2, 1.3, 3.0; TS EE-30200.1, § 3.1.1.)

51. In addition, the Contract mandates:

If at any time during the [w]ork, [Toshiba], or any of [Toshiba's] Subcontractors declares obsolete, updates, modifies, or in any way improves any item proposed to be supplied or utilized or actually supplied or utilized, all such items proposed or actually supplied or utilized shall be similarly updated, either in part or as a direct replacement such that all such items are identical at the conclusion of the [w]ork.

(TR, § 3.10.6.1.)

52. In performing its work, Toshiba is required to comply with the requirements of various engineering codes and standards, such as IEEE, ANSI, and ASME Codes. (*See, e.g.*, TR, §§ 2.2, 4.6; TS ME-11450.4, § 2.0.)

53. Toshiba also committed to achieving certain project milestones by deadlines set forth in or established in accordance with the Contract. (Contract §§ I.1-2, III.) If Toshiba fails to meet certain deadlines, Toshiba must pay

Consumers Energy and DTE liquidated damages based on the length of its delay. (Contract, § IV.2B, as amended by CCO9(10).)

**D. Toshiba Warrants That Its Work Will Conform And Be Free of Defects.**

54. In the Contract, Toshiba warranted that all its work—including the work of its subcontractors and suppliers—would conform to the Contract (including the Specifications) and be free from defects for a period commencing at “Unit Interim Acceptance” and until the longer of 6 years after the date of successful completion of the Extended Commercial Operation Test or 3 years after the date of Unit Final Acceptance. (Contract § II.GC21(b)(ii), as amended by CCO9(6).)

55. The Contract further requires that, after Consumers Energy and DTE notify Toshiba of any failure to comply with the warranties, Toshiba must “promptly” and “within a reasonable time” make “any and all” necessary repairs or replacements, including performing work incidental to the corrective work and replacing “all defective work,” at Toshiba’s sole expense. (Contract §§ I.1, II.GC15(j), GC22(b)(i).)

56. The Contract also requires Toshiba to re-do or replace work rejected by Consumers Energy and DTE due to a nonconformity and promptly resolve any deficiencies that Toshiba finds through examinations, inspections, and tests required during fabrication. For example, the Contract provides:

Section II.GC14(e)—[I]f the Owner at any time during the performance of the [w]ork becomes aware that any part of the [w]ork does not comply with requirements of this Contract, the Owner may reject it by notification to [Toshiba]. On being so notified, [Toshiba] must (despite any previous approval of or payment for the portion of the [w]ork in question by the Owner) re-do or replace the same, at [Toshiba's] own cost and within such period as Owner directs, so that the [w]ork is in conformity with this Contract. Any requirement to so re-do or replace any [w]ork shall not entitle [Toshiba] to any extension of the Contract Schedule or any part thereof.

Section II.GC27(e)—[Toshiba] shall perform all examinations, inspections, and tests during fabrication as described by the various Quality Assurance/Quality Control requirements, codes and standards, and Technical Specifications described in and/or referenced in the [Specifications]. Any deficiencies found shall be promptly resolved by [Toshiba], to the Owner's satisfaction, at no cost to the Owner.

57. Consumers Energy and DTE may notify Toshiba of work that does not comply with the Contract, including the Specifications, through Nonconformance Reports, as well as other correspondences and documents. (Specifications Part Three, Attachment C—Quality Assurance Requirements, § 4.1.) Toshiba must respond to such notice within the timeframe requested by Consumers Energy and DTE. (*Id.*)

**E. Under The Contract, Consumers Energy And DTE Have Rights To Correct Toshiba's Defective Work At Toshiba's Expense.**

58. If Toshiba fails to promptly correct any defective work, complete the work, or perform any provision of the Contract, Consumers Energy and DTE have the right to perform or to hire third parties to perform the corrective or incomplete

work, and Toshiba must reimburse Consumers Energy and DTE for that work. (*See e.g.*, Contract, §§ II.GC10, GC22(b)(ii), GC18(e); Specifications Part One, § 4.6.)

59. Toshiba's warranty applies to "all corrective work" by Toshiba, Consumers Energy, DTE, or a third party. (Contract § II.GC22(b)(i)-(ii).)

**F. Toshiba Parent Guarantees Indemnification, Payment, And Performance.**

60. Toshiba's obligations are backed by a guaranty provided by Toshiba Parent. In 2011, Toshiba Parent provided Consumers Energy and DTE with a guaranty of indemnification, payment, and performance ("Parent Guaranty"). (A true and correct copy of the Parent Guaranty is attached as Exhibit C.) Toshiba Parent acknowledged "that its entry into this [Parent] Guaranty is a material inducement for the Owner to execute the Contract."

61. In 2015, in connection with the assignment of the Contract from Toshiba International Corporation to Toshiba, Toshiba Parent expressly confirmed and agreed that the Parent Guaranty remained "fully in force and effect." (*See Exhibit B.*)

62. Toshiba Parent guaranteed to Consumers Energy and DTE that, if Toshiba failed, in any respect, to perform or observe the Contract's terms, Toshiba Parent would immediately, upon Consumers Energy's and DTE's first demand in

writing, perform or take necessary steps to achieve performance or observance in full of such terms and provisions. (Parent Guaranty § 2.)

63. Under Section 2 of the Parent Guaranty, Toshiba Parent must indemnify Consumers Energy and DTE against all losses, damages, claims, costs, charges, and expenses arising from Toshiba’s failure to perform or observe the Contract’s terms, including Consumers Energy’s and DTE’s reasonable costs, expenses, and attorney fees incurred in enforcing its rights under the Contract and/or the Parent Guaranty.

64. Under Section 4, Toshiba Parent must make any payment due, without set-off or counterclaim, upon first written demand.

#### **G. Toshiba Fails To Deliver Timely Work.**

65. Toshiba’s work has been plagued by delay. Under the Contract, Toshiba was originally to complete all work and achieve “Final Completion” of the overhaul project by June 1, 2020. (Contract § I.2.) This date was later extended to December 31, 2020 in 2017 as part of a negotiation. (Contract § I.2, as amended by CCO9(2).) But as of the date of this Complaint, Toshiba still has not achieved Final Completion.

66. Toshiba experienced lengthy delays from the very start of the project. For example, Toshiba began the engineering for the first Unit to be upgraded, Unit 2, substantially behind schedule. Then, even after commencing the overhaul and

upgrade of Unit 2, Toshiba's work was further delayed. As a result, the duration of Unit 2's outage exceeded the outage duration provided for in the Contract by at least 32 weeks.

67. Unit 2 achieved Unit Interim Acceptance more than 9 months after the Contract's Unit Interim Acceptance deadline for that Unit.

68. Similarly, the second Unit to be overhauled and upgraded—Unit 4—achieved Unit Interim Acceptance nearly a full year after the deadline established by the Contract.

69. In February 2017, after extensive negotiations, Consumers Energy, DTE, and Toshiba executed Contract Change Order 9, which reset certain deadlines in light of prior delays, and adjusted project pricing. (CCO9(2), (8), (10).)

70. In Contract Change Order 9, Consumers Energy and DTE enforced the contractual requirement that Toshiba achieve certain project milestones by deadlines established in accordance with the Contract. Specifically, Change Order 9 provided that Toshiba would pay certain liquidated damages in connection with the delay in achieving Unit Interim Acceptance of Units 2 and 4. (CCO9(1).)

71. Significantly, in Contract Change Order 9, Consumers Energy, DTE, and Toshiba reaffirmed that Toshiba alone would be responsible for any further

delays associated with noncompliance with Contract requirements. Paragraph 2.B of Section IV of the Contract was amended to provide that:

For the avoidance of any doubt, it is expressly understood that any delays in achieving Unit Interim Acceptance for any Unit that are caused by the Owner's insistence on [Toshiba] properly performing all parts of the [w]ork in accordance with the requirements of this Contract or by the Owner's assertion or exercise of any other rights of the Owner under this Contract, shall in no event be cause for [Toshiba] to claim entitlement to any delay of the Unit Interim Acceptance Target Date or any extension to the Unit Interim Completion Milestone Date Deadband or any additional compensation from the Owner.

(CCO9(10a), Attached Section IV – Contract Price (Revision 1) § 2.B.) That same provision also reaffirmed that Consumers Energy and DTE could withhold liquidated damages that might accrue as a result of delays against future invoices.

(*Id.*)

72. Despite the deadline adjustments provided in Contract Change Order 9, Toshiba's delays continued. The third Unit to be overhauled and upgraded—Unit 5—achieved Unit Interim Acceptance by more than eight weeks after the *revised* deadline established by Contract Change Order 9, and nearly a year after the original deadline. In January 2018, Consumers Energy and DTE again enforced the contractual requirement that Toshiba meet certain project milestones by executing with Toshiba Contract Change Order 10, which provided that Toshiba would pay

certain liquidated damages associated with the delay in Unit Interim Acceptance of Unit 5. (CCO10(1).)

73. Toshiba nonetheless continued to experience delays in completing the final three Units.

74. Units 1 and 6 also achieved Unit Interim Acceptance late, after the revised deadlines for those milestones set by Contract Change Orders 9 and 10. (Contract § III as amended by CCO9(8) and CCO10(2).) As a result, Toshiba owes Consumers Energy and DTE substantial liquidated damages. (Contract § IV.2.B as amended by CCO9(10a).)

75. In addition, as of the date of this Complaint, Toshiba has not yet addressed a number of outstanding Punch List Items for Units 1 and 6. As a result those Units have yet to achieve Unit Final Acceptance.

76. Most recently, Toshiba's defective work and project mismanagement has significantly delayed work on Unit 3. Under the Contract, as amended by Contract Change Orders 9 and 10, Toshiba was required to achieve Unit Interim Acceptance for Unit 3 on or before April 9, 2020. (Contract § III as amended by CCO9(8) and CCO10(2).) However, due to its own defective work and mismanagement, Toshiba did not achieve Unit Interim Acceptance for Unit 3 until April 2, 2022—nearly two years after the deadline. As a result, Toshiba owes

millions of dollars of liquidated damages for the late completion of Unit 3. (Contract § IV.2.B as amended by CCO9(10a).)

77. In addition to successful completion of acceptance testing, there are a number of Punch List items that must be addressed for Unit 3 before that Unit can achieve Unit Final Acceptance under the Contract. The Owner provided Toshiba with a list of Punch List items for Unit 3 on April 2, 2022, but Toshiba responded with a letter on April 4, 2022 refusing to recognize the vast majority of those items as “actual” Punch List items that Toshiba must correct or provide pursuant to the Contract.

78. Consumers Energy and DTE have withheld certain payments on Toshiba’s invoices in light of: (i) the incomplete work on Units 1, 6 and 3, (ii) the liquidated damages owed for delay in achieving Unit Interim Acceptance of Units 1, 6 and 3, and (iii) the costs associated with outstanding warranty items and Toshiba’s defective work.

79. This withholding is authorized by, among other things, Section I.5(f)(i) of the Contract, which permits withholding payment to protect the Owner against losses associated with “[d]efective [w]ork not remedied” and Section IV.2.B. of the Contract, as amended by Contract Change Order 9, which specifically authorizes

withholding liquidated damages associated with delays in achieving Unit Interim Acceptance.

80. As of the date of this Complaint, the amount withheld by Consumers Energy and DTE is materially less than the expected amounts owed due to Toshiba's incomplete, defective, and tardy work.

## **H. Toshiba Performs Defective Work.**

81. Toshiba has performed defective work and services under the Contract, including defectively designing, fabricating, and installing components in the Ludington Plant. Toshiba has repeatedly refused to remedy or provide solutions to remedy its defective work, despite multiple demands by Consumers Energy and DTE. Toshiba's defective work has affected the following key aspects of the Ludington Plant, among others: (a) the discharge ring extensions ("DREs"); (b) the main shaft seals; and (c) the motor-operated disconnect ("MOD") switches. Each is detailed below.

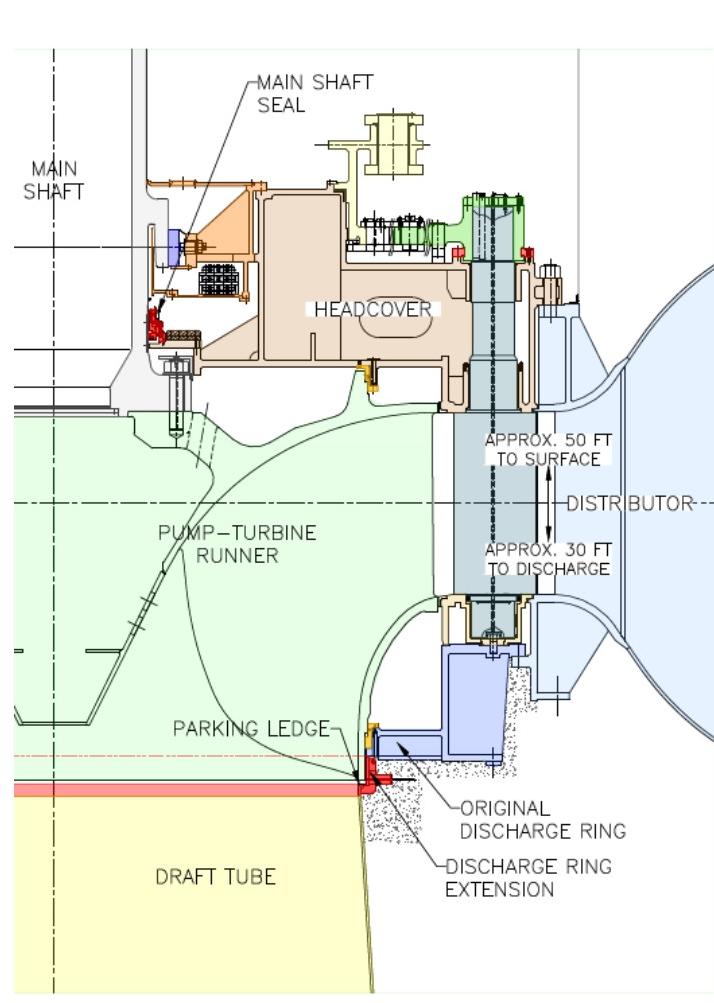
### ***1. Toshiba Has Performed Defective Work With Respect To The DREs.***

82. As part of the overhaul, Toshiba designed and installed a large stainless steel ring called a Discharge Ring Extension or "DRE" in each of the Units. The DRE was designed, fabricated, and installed by Toshiba as part of the overhaul. The DRE is necessary to extend the original discharge ring in each Unit to accommodate

the new, taller runner (also designed, fabricated, and installed by Toshiba) as part of the overhaul.

83. The DRE acts as a pressure boundary, containing the water in the Unit as the water flows through the runner and into Lake Michigan via a draft tube when the Unit is in generating mode, or vice-versa in pumping mode.

84. A graphical cross-section showing the DRE and other related aspects of one of the Ludington Plant turbines is set out here as Figure 3:



85. During the installation and disassembly of the runner, the runner rests on top of the horizontal section of the DRE—referred to as the “parking ledge”—before it is hoisted up and fitted to the main shaft.

86. Once the runner is installed, much of the DRE is hidden behind the runner, making the component difficult to access, inspect, and repair.

87. In order to inspect the DRE once the runner is installed, Consumers Energy and DTE must suspend a platform on the walls of the draft tube during a non-routine Unit outage. The process of installing and removing each platform requires dewatering of the Unit, takes approximately a week, and is costly. Even then, inspection of the entire DRE requires instrumentation, and much of the DRE cannot be subjected to non-destructive examination. Neither non-destructive examination nor repairs can be performed without disassembling the Unit.

88. In the fall of 2019, Consumers Energy and DTE discovered significant defects in the DREs installed in Units that had then been completed to date—specifically, Units 2, 4, and 5.

89. Specifically, in September 2019, while conducting inspections of Units 2 and 4 during scheduled maintenance outages (including inspection of corrective work performed to address prior Toshiba errors), Consumers Energy and DTE discovered cavitation erosion—i.e., loss and deterioration of metal caused by

bubbles in the water. Consumers Energy and DTE immediately filed a Nonconformance Report notifying Toshiba of the cavitation erosion in both units.

90. After subsequent inspections in October 2020 and May 2021 revealed that the cavitation erosion had worsened, Consumers Energy and DTE informed Toshiba that this problem would materially reduce service life and result in a failure to achieve the contractually specified service duration of the Units.

91. Separately, while conducting warranty-related inspections in October 2019, Consumers Energy and DTE also discovered cracking at the parking ledge of the DREs of Units 2 and 5. Consumers Energy and DTE immediately filed Nonconformance Reports concerning the defective DREs in Units 2 and 5.

92. The cracking in the DREs violates engineering codes that apply to Toshiba's work under the Contract, including the ASME code and others.

93. Also in October 2019, Consumers Energy and DTE discovered cracking in Unit 3's DRE—a Unit for which the overhaul was still ongoing—before Toshiba had even completed installation and prior to Unit assembly or placing the Unit into operation. Consumers Energy and DTE immediately filed a Nonconformance Report regarding the cracking in the Unit 3 DRE.

94. For approximately five months, from November 2019 through March 2020, Toshiba attempted to fix the cracking in Unit 3's DRE, but Toshiba's attempts

only caused more cracking and damage to the DRE. Due to the amount of distortion in the DRE and the inadequacy of the repairs after Toshiba's trial-and-error efforts to fix it, Consumers Energy and DTE rejected the DRE in March 2020.

95. To attempt to remedy the cracking on Unit 3 and the other units, Toshiba redesigned and built a new DRE for Unit 3 with a different structure, material, and installation method than its prior DRE design. Toshiba, however, has not applied that new design to any of the five other units.

96. With Units 2 and 5, Toshiba has attempted temporary repairs on some of the DRE cracks, but has refused to address all the cracks, and has refused to replace the DREs with the new design Toshiba prepared and implemented for Unit 3. Toshiba's Unit 2 and 5 repair attempts, which have involved partial excavation and welding over existing cracks, do not meet the engineering codes adopted under the Contract, such as the ASME code and others. Consumers Energy and DTE permitted Toshiba to perform those repairs as a temporary measure, but made clear that Toshiba must also provide a permanent repair. To date, Toshiba has not offered or performed any permanent repair.

97. In the meantime, Consumers Energy and DTE discovered DRE cracking on all remaining units. Units 1, 2, 4, 5, and 6 all suffer from DRE cracking.

98. In the fall of 2020, Consumers Energy and DTE were able to conduct an inspection of Unit 6's DRE for the first time and identified cracks and other defects at the parking ledge of the DRE.

99. In 2021, Consumers Energy and DTE were able to conduct an inspection of Unit 1's DRE for the first time and identified cracks and other defects at the parking ledge of the DRE and also above the parking ledge (in an area behind the runner that is inaccessible for repair without Unit disassembly).

100. In both instances, Consumers Energy and DTE filed Nonconformance Reports regarding the cracking soon after seeing it for the first time.

101. The main causes of the cracking in the DREs are Toshiba's defective services under the Contract, including Toshiba's design, material selection, manufacture, and installation.

102. Because of the cracking and degradation caused by Toshiba's defective work, the DREs in Units 1, 2, 4, 5, and 6 now require annual inspection and repair outages of more than 10 days. This need for increased monitoring and repair violates the Contract's warranties and requirements with respect to maintenance and service life.

103. The DREs in Units 1, 2, 4, 5, and 6 must be replaced because the DRE cracking and defects, and DRE-related cavitation erosion, continue to worsen and cannot be permanently fixed without replacement.

104. Continued cracking and other defects in and around the DREs will ultimately lead to unrepairable leaks and will undermine the structural integrity of the DREs and adjacent structures. Distortion of the DREs will interfere with operation of the runner, and the Units will become inoperable. The only solution is to replace the DREs before they fail.

105. If not properly addressed, the DRE cracking and cavitation erosion problems will shorten each Unit's life significantly. The DREs in certain Units have a remaining service life of less than 10 years. Because replacement of the DREs requires full disassembly of the affected Units, this means five of six Units—at a minimum—will fall far short of the 30-year service life required by the Contract.

106. Cracking may have already caused water to breach the pressure boundary and leak in Unit 4. This water leakage reduces the Unit's stability by eroding and creating pockets in the concrete and grout behind the DRE and other piping for each Unit. Cracking associated with the Unit 1 DRE has also already caused damage to the runner itself.

107. Replacing the DREs will be a lengthy and expensive process. To work on the DREs, each Unit must be disassembled. This involves removing more than 1,000 tons of components, including the upper shaft, rotor spider, main shaft, and runner, to gain access to the entirety of the DRE.

108. Such disassembly will necessitate an estimated year-long outage, during which time the affected Unit will be out of commission.

109. Completing DRE replacement on five Units will take several years and require repeated, lengthy outages as it is not possible to disassemble and repair more than one Unit at a time.

110. Due to the extensive planning process involved with a major overhaul, Consumers Energy and DTE need significant lead time to prepare. If a Unit is estimated to last only 10 more years, then Consumers Energy and DTE must start planning now for a major outage affecting that Unit, including by finding replacement sources of energy to serve millions of Michigan residents and businesses during that outage.

111. Consumers Energy and DTE currently estimate that, for each Unit, replacing the DRE will require a lengthy, major year-long outage and will cost at least tens of million dollars, if not more, per Unit.

**2. *Toshiba Has Performed Defective Work With Respect To The Shaft Seal System.***

112. The main shaft seal system, like the DRE, is part of each Unit's pressure boundary. The shaft seal system prevents an excessive amount of water flowing through the turbine and draft tube from escaping into dry areas of the Plant's interior through an opening where the Unit's main shaft runs from the runner to the motor generator. The shaft seal is depicted in Figure 3, above, in connection with paragraph 84.

113. The main shaft seal system is critical to the Ludington Plant because it keeps the water that rotates the runner out of the rest of the Unit and prevents excessive water from flooding the headcover, entering the turbine guide bearing tub (thereby contaminating the oil lubricating the turbine guide bearing), and ultimately making operation of the Unit impossible.

114. As part of the overhaul, Toshiba replaced the prior, reliable main shaft seal system with defectively designed seals that do not fulfill their purpose of keeping water controlled in a reliable manner.

115. Excessive water and air leakage from Toshiba's defective seals have forced various Units to undergo several unplanned outages for repairs and/or changing of the turbine guide bearing oil due to water contamination.

116. Each time Consumers Energy and DTE discovered water and air leakage from the defective shaft seal system, Consumers Energy and DTE timely provided Nonconformance Reports to Toshiba. In response, Toshiba made multiple attempts to repair or retrofit the shaft seal system. Despite these numerous trial-and-error repair attempts, Toshiba has been unable to resolve the problem in a manner that meets the service life requirements of the Contract.

117. In 2019, after multiple failures of the shaft seals in multiple units, and after multiple unsuccessful attempts at repairs by Toshiba, Consumers Energy and DTE requested that Toshiba replace the defective design of the main shaft seal with an alternate and proven seal design that is effective, requires low maintenance, needs no active measures to operate, has an effective water deflection system, and will allow the Units to operate for the required minimum service life of 30 years.

118. In response, Toshiba refused to replace the main shaft seal system design as requested, but instead made further trial-and-error repair efforts. Toshiba's latest round of adjustments failed to fix the unreliable main shaft seal systems.

119. Toshiba has repeatedly urged Consumers Energy and DTE to accept stopgap measures, such as installation of "slinger rings," which are not a repair to the shaft seal systems but are instead a separate component designed to deflect water

away from the shaft seal systems. These stopgap measures do not remedy the failed shaft seal systems and are not sufficient to ensure a sufficient pressure boundary.

120. In January 2020, despite Toshiba's attempted repairs, Consumers Energy and DTE discovered excessive water leakage in the shaft seal system for Unit 2.

121. Later that year, in July 2020, the main shaft seal in Unit 5 was found to have excessive water leakage.

122. A few months later, in December 2020, there was excessive water leakage from the Unit 6 shaft seal system.

123. The following year, in February 2021, there was excessive water leakage from Unit 6's shaft seal system.

124. During a 2021 outage, Toshiba made even more retrofits to the main shaft seal system at its subcontractor's recommendation.

125. However, components of the retrofitted main shaft seal system continue to fail. For example, in October 2021, Consumers Energy and DTE discovered that the shaft seal cooling water has been leaking from the shaft seal systems in Units 5 and 6.

126. In addition, Toshiba's retrofitted shaft seals have been causing pressure fluctuations in the shaft seal system, resulting in more temporary measures and more

trial-and-error modification recommendations from Toshiba and its subcontractor—confirming the need to replace Toshiba’s defective design rather than continuing to adjust the current design that continues to fail.

127. Despite numerous requests by Consumers Energy and DTE that Toshiba address shaft seal system issues by installing a new shaft seal system in each Unit, Toshiba has refused.

**3. *Toshiba Has Performed Defective Work With Respect To The MOD Switches.***

128. Each Unit has a MOD switch that controls that Unit’s connection to the starting bus, an electrical component that is vital to the process of switching each Unit from generating to pumping modes—a necessary function for a pumped storage generating Unit.

129. More specifically, MOD switches 105, 215, 315, 415, and 515 ensure proper starting bus configuration such that each Unit can individually be placed into pumping mode.

130. However, the MOD switches selected and installed by Toshiba for switches 215, 315, 415, and 515 are unreliable, show degradation, and are not repairable without significant modifications. The MOD switches selected by Toshiba have failed repeatedly, as detailed below. The original equipment

manufacturer of the MOD switches is no longer in business according to Toshiba, and replacement parts for the Toshiba-installed design are therefore unavailable.

131. As a result, to remedy the defect, MOD switches 215, 315, 415, and 515 must be replaced. But, despite the many MOD switch failures outlined below and in Nonconformance Reports, Toshiba has refused to replace the defective and obsolete switches, except for one.

132. In December 2017, MOD switch 105 failed during operation and, after Consumers Energy and DTE filed a Nonconformance Report, Toshiba replaced the switch.

133. The replacement of the MOD switch 105 did not fully correct the problems with the switch, however. In May 2020, Consumers Energy and DTE learned of multiple operational issues with the replaced MOD switch 105. To address those problems, Toshiba replaced the MOD switch 105 with a more robust design from a reputable telescopic disconnect switch supplier during the 2021 spring outage.

134. Toshiba, however, has refused to replace the other MOD switches that share the same defective design as the original 105 switch, despite multiple problems and failures of those other switches.

135. For example, in March 2020, the 215 switch failed to retract once pumping operations started due to a blown primary control fuse.

136. In November 2020, Consumers Energy and DTE received an alarm while the 515 switch was cycled open or closed and, during troubleshooting, discovered the 515 switch drive motor circuit had signs of heat damage. No cause of failure was determined by Toshiba and the damaged component was replaced.

137. In February 2021, the 215 switch failed in service because its primary control fuse had (again) blown. Subsequently, in March 2021, the 215 switch blew a negative fuse. No countermeasures have been provided by Toshiba.

138. Inspections conducted in October 2020 and April 2021 identified other issues with the MOD switches, including abnormal wear on some parts and loose parts. Yet, Toshiba still did not make any progress in diagnosing the issue or offering any viable corrective actions or additional troubleshooting options.

139. Additionally, contractual deficiencies in the installed equipment were identified while attempting to determine the cause of the repeated MOD switch failures. These contractual nonconformances included, but were not limited to, the failures of MOD switches 215, 315, 415, and 515 to satisfy the technical specifications requirements of the Contract, such as the IEEE code. These

deficiencies were outlined by Consumers Energy and DTE in Nonconformance Reports in July 2021 and have not been responded to by Toshiba to date.

140. Consumers Energy and DTE have repeatedly demanded that Toshiba address the MOD switch defects with a comprehensive plan of corrective action and/or by replacing the switches with the same equipment used to address the defects in MOD switch 105. Consumers Energy and DTE have also requested that Toshiba replace MOD switches 215, 315, 415, and 515 with the design used for the replacement of MOD switch 105 pursuant to specification provisions that require replacement if a component is determined to be obsolete or upgraded in a later Unit. (See TR, §3.10.6.1; TS EE-05110.1, §3.2.5.)

141. Despite numerous requests, Toshiba has refused to replace switches 215, 315, 415, and 515 and has failed to provide any other comprehensive plan to correct the defective equipment and meet the requirements of the Specifications.

**I. Toshiba Has Failed To Remedy An Extensive Backlog Of Other Warranty Issues.**

142. In addition to the issues above, Toshiba has refused to or failed to remedy many other warranty issues. Consumers Energy and DTE have submitted more than 120 Nonconformance Reports that Toshiba has not addressed or fully resolved (“Outstanding Nonconformance Reports”).

143. Approximately one third of the Outstanding Nonconformance Reports have been unresolved for more than a year.

144. In numerous instances, Toshiba has simply ignored or failed to respond to Outstanding Nonconformance Reports or related correspondence.

145. In other instances, Toshiba has delayed responding to Nonconformance Reports or related correspondence for a long period of time.

146. The Outstanding Nonconformance Reports cover substantial defective work by Toshiba in all six Units that does not meet the requirements of the Contract, including the Specifications.

147. For example, Toshiba provided generator circuit breaker pumping poles with a reduced service life. Consumers Energy and DTE will need to have 14 additional outages per Unit over the contractually required number to replace the poles during the 30-year service life.

148. As another example, Toshiba supplied new high pressure oil systems for all Units that are intended to supply a critical flow of high pressure oil to the thrust bearing, allowing the Unit to start and stop without damaging the bearing. High pressure oil pumps installed as part of this system have failed in multiple Units. Further, the high pressure oil systems fail to meet industry standards for controls and alarming functions, among other things. Consumers Energy and DTE have provided

multiple Nonconformance Reports to Toshiba regarding failure of the high pressure oil systems, but Toshiba has not responded to these Nonconformance Reports or otherwise provided a remedy for the defects.

149. As another example, Toshiba improperly designed and installed wicket gate thrust liners in all of the Ludington Plant Units. The wicket gate thrust liners are bushings that hold in place each of the twenty wicket gates in each Unit that control the flow of water through each turbine. Each individual wicket gate weighs approximately 20,000 pounds. Proper alignment and operation of the wicket gates are critical to Plant operation. Some wicket gate thrust liners have prematurely failed. In all Units, the wicket gate thrust liners show signs of significant wear. The failures have been caused by or resulted in sheared retaining bolts and/or broken-off material leaving voids in the supporting surface. Additionally, Toshiba's work is deficient as it fails to meet even its own design drawing in the installed condition.

**J. Consumers Energy And DTE Attempt In Good Faith To Resolve Defective Work, But Toshiba Refuses.**

150. Through many Nonconformance Reports, emails, letters, and meetings, Consumers Energy and DTE have repeatedly notified Toshiba that its defective work violates the Contract, including the Specifications and Toshiba's warranty.

Consumers Energy and DTE have also repeatedly requested that Toshiba address outstanding Punch List items for Units 1, 6, and 3.

151. At the same time, Consumers Energy and DTE have attempted to work with Toshiba to find permanent solutions to Toshiba’s defective and nonconforming work. But, despite Consumers Energy’s and DTE’s efforts, and Toshiba’s contractual obligations, Toshiba has refused to resolve the outstanding warranty items.

152. For example, after the Owner requested in a Nonconformance Report that Toshiba repair all the defects in Unit 1’s DRE, Toshiba indicated that the Owner should “Use-As-Is” the defective DRE. In another instance, after the Owner requested in a Nonconformance Report that Toshiba repair all defects in Unit 4’s DRE, Toshiba indicated that the Owner should “Leave-As-Is” certain defects in the DRE.

153. After months of unsuccessfully requesting that Toshiba fulfill its contractual obligations, on July 30, 2021, Consumers Energy and DTE provided Toshiba with a notice of a dispute under GC9 of the Contract. The notice asked Toshiba to provide, within 60 days of the notice, a detailed, comprehensive, measurable, and credible written plan outlining permanent solutions for Toshiba’s defective work.

154. On September 22, 2021, Consumers Energy and DTE had an executive level meeting with Toshiba, as required under GC9 of the Contract. Representatives sent by Toshiba Parent also attended the meeting.

155. Toshiba, however, never provided a comprehensive plan. Instead, Toshiba has primarily argued that Consumers Energy and DTE should use defective components “as is” and take a wait-and-see approach as to whether the components or the Units will fail.

156. On October 6, 2021, Consumers Energy and DTE advised Toshiba that the 60-day period under GC9 had expired without resolution of the dispute and reiterated that Toshiba’s defective performance and delays with respect to Unit 3 and the outstanding warranty items violated the Contract.

157. On December 10, 2021, Consumers Energy and DTE invoked the Parent Guaranty by serving a demand on Toshiba Parent. Consumers Energy and DTE advised Toshiba Parent that Toshiba had failed to perform or observe the terms and provisions of the Contract, including by delaying the overhaul of Unit 3, failing to properly address warranty items, and failing to comply with the Contract requirements regarding uniformity, obsolescence, updating, and service life.

158. Consumers Energy and DTE requested that Toshiba Parent perform or take such steps as are necessary to achieve performance or observance in full of the

terms and conditions of the Contract. Consumers Energy and DTE also requested that Toshiba Parent indemnify Consumers Energy and DTE.

159. Toshiba Parent refused to perform or take such steps as are necessary to achieve observance in full of the Contract's terms and conditions, or to indemnify Consumers Energy and DTE.

160. In light of Toshiba's consistent failure to either address outstanding warranty or Punch List items or provide a long-promised proposal for doing so, on April 6, 2022, Consumers Energy and DTE sent a letter to Toshiba and Toshiba Parent demanding that Toshiba and Toshiba Parent address all outstanding warranty and Punch List items, including replacing the DREs in Units 1, 2, 4, 5, and 6, replacing the main shaft seal systems in all units, and replacing MOD switches 215, 315, 415, and 515.

161. The letter notified Toshiba and Toshiba Parent that if they failed to commit to addressing all outstanding warranty and Punch List items within ten business days, or by April 20, 2022, then Consumers Energy and DTE would have no choice but to exercise their rights under the Contract, including to undertake that work at Toshiba's expense. (Contract §§ II.GC22(b)(i), GC22(b)(ii), GC10; Specifications Part One § 4.6.)

162. The same day, Toshiba sent a letter to Consumers Energy asking to inspect the DREs of three Units and again proposing to install stopgap slinger rings on four Units. Toshiba did not provide the long requested comprehensive plan and instead asked for even more time to prepare such a plan.

163. Consumers Energy and DTE responded that, while they welcomed inspection of the DREs, installing slinger rings was unacceptable including because slinger rings do not resolve the problems caused by Toshiba's defective work on the main shaft seals.

164. On April 15, 2022, Toshiba wrote to Consumers Energy and DTE, suggesting that Toshiba would not propose a plan to rectify Toshiba's defective work with respect to the DREs by April 20, 2022, as Consumers Energy and DTE demanded. Instead, Toshiba proposed to collect additional data. As detailed above, Consumers Energy and DTE have been asking Toshiba to commit to a plan to rectify its deficient work for many months, and there is already substantial data establishing the defectiveness of Toshiba's work.

165. As of the date of this Complaint, Toshiba and Toshiba Parent have refused to commit to a comprehensive plan to rectify Toshiba's defective work.

**K. Toshiba's Defective, Nonconforming, And Delayed Work Significantly Injures Consumers Energy And DTE.**

166. Consumers Energy and DTE have suffered and will continue to suffer significant injury as a result of Toshiba's defective and nonconforming work, refusal to correct its defective and nonconforming work, delays with completing the overhauls and upgrades of the Units, and failure to complete outstanding Punch List items on Units 1, 6 and 3.

167. Consumers Energy and DTE have incurred substantial monetary damage as a result of Toshiba's failures, including millions of dollars of costs and expenses associated with extension of the project, attempting to address the many defective aspects of Toshiba's work, out-of-pocket costs required as a result of Toshiba's late and defective work, and the failure of Toshiba to provide the overhaul and upgrade that Toshiba promised to deliver in the Contract. Consumers Energy's and DTE's damages continue to accrue so long as Toshiba's defective and incomplete work is not corrected.

168. Consumers Energy and DTE have spent and incurred millions of dollars in out-of-pocket damages because of Toshiba's defective, nonconforming, and delayed work.

169. Toshiba's failure to complete the overhaul and upgrade work in accordance with the Contract, including the requirement of a 30-year service life,

has frustrated the purpose of the Contract and prevented Consumers Energy and DTE from getting what they paid for in the Contract.

170. Consumers Energy and DTE will incur significant costs and expenses in finding, vetting, hiring, and onboarding another company to complete and to fix Toshiba's defective work.

171. Consumers Energy and DTE will incur significant costs and expenses in planning and implementing the major repairs necessary to address Toshiba's defective work.

172. As described in paragraphs 78 to 79 above, on identification of the significant defects in Toshiba's work and the delayed response from Toshiba regarding solutions to the issues, Consumers Energy and DTE have rightfully retained funds from Toshiba in accordance with the Contract. The retained funds, however, fall far short of the significant costs and expenses that will be required to resolve all of Toshiba's defective work.

173. Consumers Energy and DTE have incurred and will incur costs, expenses, and attorneys' fees in enforcing their rights under the Contract and Parent Guaranty, including in filing this action.

## **CLAIMS**

### **Count I: Breach of Contract (Breach of Warranty Provisions) *Against Toshiba***

174. Consumers Energy and DTE repeat and reallege the allegations of Paragraphs 1 through 173 as though fully set forth here.

175. Consumers Energy, DTE, and Toshiba executed a valid contract containing warranties by Toshiba upon which Consumers Energy and DTE relied when purchasing Toshiba's services for the overhaul and upgrade of the Ludington Plant.

176. In Section I.1 of the Contract, Toshiba agreed "to perform and complete, in a good, substantial, workmanlike and approved manner within the time hereinafter specified and in accordance with terms, conditions and provisions of this Contract, all of the [w]ork described in SECTION III – DESCRIPTION OF WORK, which is attached to and made a part of this Contract, and otherwise in the Contract Documents (as hereinafter defined)."

177. In Section II GC21(b)(ii) of the Contract, as amended by Change Order 9, Toshiba warranted that all its work—including the work of its subcontractors and suppliers—would conform to the Contract, including the Specifications, and be free from defects for a period commencing at the Unit Interim Acceptance and until the

longer of 6 years after the date of successful completion of the Extended Commercial Operation Test or 3 years after the date of Unit Final Acceptance.

178. Toshiba breached its warranties to Consumers Energy and DTE by providing defective and nonconforming work, including but not limited to: defective work in connection with the DREs, including cracking and degradation in the DREs for Units 1, 2, 4, 5, and 6; defective work in connection with the main shaft seal systems; defective work in connection with the MOD switches 215, 315, 415, and 515; and defective work in connection with all other defects outlined in the Outstanding Nonconformance Reports and Punch Lists.

179. Toshiba's defective work violates multiple specifications and requirements of the Contract, including the requirements that Toshiba's work would:

- (a) return the Ludington Plant to an as-new condition (Specifications Part Two TR, §§ 1.0, 1.7.1, 3.0);
- (b) enable each Unit to operate reliably and efficiently for a service life of at least 30 years with only minimal routine maintenance during planned periodic outages (Specifications Part Two TR, §§ 1.0, 1.7.1, 3.0);
- (c) enable each Unit to operate for three years between each involved planned preventative maintenance periodic outage (Specifications Part Two TR, §§ 1.7.1, 3.4.2.2, 1.7.2);
- (d) improve the Ludington Plant's generating and pumping capabilities, efficiency, maintainability, availability, reliability, and its overall operation, among other things (Specifications Part Two TR, §§ 1.2, 1.3, 3.0; Specifications Part Two Technical Specification EE-30200.1, § 3.1.1);

- (e) comply with the requirements of applicable engineering codes and standards (*See, e.g.*, Specifications Part Two TR, §§ 2.2, 4.6; Specifications Part Two TS ME-11450.4, § 2.0); and
- (f) result in uniformity such that, if Toshiba modifies, declares obsolete, or in any way improves any component in one Unit, all such components will be similarly updated in all Units so that they are identical at the conclusion of the overhaul and upgrade. (Specifications Part Two TR, § 3.10.6.1.)

180. Toshiba breached those provisions by failing, among other things, to overhaul and upgrade the Ludington Plant so that it would be in an as-new condition, have a 30-year service life, require an involved planned preventative maintenance outage just once every three years, be more reliable, and require less maintenance.

181. Toshiba further breached the Contract, including its Specifications, by failing to uniformly update components—such as the DREs and the MOD switches—in all Units when a component in one Unit was modified, declared obsolete, or improved.

182. Each time Consumers Energy and DTE learned of Toshiba's defective work, Consumers Energy and DTE promptly notified Toshiba, including without limitation through the Nonconformance Report process.

183. As a direct and proximate result of Toshiba's breach of its warranties, Consumers Energy and DTE have suffered and will suffer significant damages, including, but not limited to, the major expenses they incurred and will incur to

address the defective work and the failure of Toshiba to provide the overhaul and upgrade that Toshiba promised to deliver in the Contract.

WHEREFORE, Consumers Energy and DTE request that judgment be entered against Toshiba and that this Court order (1) Toshiba to pay Consumers Energy and DTE all appropriate damages, including all costs and expenses required to rectify Toshiba's defective work and all out-of-pocket costs that Consumers Energy and DTE have incurred and will incur, and (2) all other relief to which Consumers Energy and DTE now are entitled or hereafter may be entitled.

**Count II: Breach of Contract  
(Breach of Duty to Repair Defects)  
*Against Toshiba***

184. Consumers Energy and DTE repeat and reallege the allegations of Paragraphs 1 through 173 as though fully set forth here.

185. Consumers Energy, DTE, and Toshiba executed a valid contract pursuant to which Toshiba was to perform the overhaul and upgrade work.

186. The terms of the Contract, including Section I.1, Section II.GC15(j), and Section II.GC22(b)(i), require that, after Consumers Energy and DTE notify Toshiba of any failure to comply with the warranties, Toshiba promptly and within a reasonable time make any and all necessary repairs or replacements, including replacing all defective work, at Toshiba's sole expense.

187. Consumers Energy and DTE have demanded multiple times that Toshiba remedy numerous warranty defects, including but not limited to the DRE cracking and cavitation erosion, the repeated failures of the main shaft seal system, and the degradation of the MOD switches. Toshiba has failed to rectify these warranty defects and has refused to replace defective components.

188. Toshiba has breached the Contract by failing to make the repairs or replacements necessary to fix its defective work.

189. As a result of Toshiba's failure to remedy its defective work, Consumers Energy and DTE have incurred and will incur damages, including but not limited to the significant expenses they incurred and will incur to remedy Toshiba's defective work, as well as the failure of Toshiba to provide the overhaul and upgrade that Toshiba promised to deliver in the Contract.

WHEREFORE, Consumers Energy and DTE request that judgment be entered against Toshiba and that this Court order (1) Toshiba to pay Consumers Energy and DTE all appropriate damages, including all costs and expenses required to rectify Toshiba's defective work and all out-of-pocket costs that Consumers Energy and DTE have incurred and will incur, and (2) all other relief to which Consumers Energy and DTE now are entitled or hereafter may be entitled.

**Count III: Breach of Contract  
(Failure to Timely Complete Work)  
*Against Toshiba***

190. Consumers Energy and DTE repeat and reallege the allegations of Paragraphs 1 through 173 as though fully set forth here.

191. Consumers Energy, DTE, and Toshiba executed a valid contract pursuant to which Toshiba was to overhaul and upgrade the Ludington Plant.

192. The terms of the Contract, including Sections I.1-2, III, and IV.2.B, require that Toshiba perform and complete work in accordance with the schedule and milestones set by or established in accordance with the Contract, including the Unit Interim Acceptance and Unit Final Acceptance milestones, for each of the six Ludington Plant Units.

193. Toshiba breached those Contract terms by failing to timely perform the necessary work to timely achieve Unit Interim Acceptance for Units 1, 3, and 6. As a result of Toshiba's failure to timely achieve Unit Interim Acceptance, Toshiba owes Consumers Energy and DTE liquidated damages in accordance with the terms of the Contract. (Contract, § IV.2.B as amended by CCO9(10a).)

194. Toshiba also breached those Contract terms by failing to timely perform the necessary work to achieve Unit Final Acceptance and thus complete its responsibility to overhaul and upgrade Units 1, 3, and 6. Under the Contract,

Consumers Energy and DTE have the right to perform or have a third party perform the incomplete work at Toshiba's expense. (*See e.g.*, Contract, §§ II.GC10, GC22(b)(ii), GC18(e); Specifications Part One, § 4.6.)

195. As a direct and proximate result of Toshiba's failure to timely complete its work and achieve the Unit Final Acceptance as set by or established in accordance with the Contract for Units 1, 3, and 6, Consumers Energy and DTE incurred and will incur damages, including, but not limited to, the significant expense they incurred and will incur to finish and replace or repair defective work on Units 1, 3, and 6.

WHEREFORE, Consumers Energy and DTE request that judgment be entered against Toshiba and that this Court order (1) Toshiba to pay Consumers Energy and DTE all appropriate damages and (2) all other relief to which Consumers Energy and DTE now are entitled or hereafter may be entitled.

**Count IV: Breach of Parent Guaranty  
Against Toshiba Parent**

196. Consumers Energy and DTE repeat and reallege the allegations of Paragraphs 1 through 195 as though fully set forth here.

197. Consumers Energy, DTE, and Toshiba Parent executed a valid contract pursuant to which Toshiba Parent made a guaranty of indemnification, payment, and performance.

198. As acknowledged by Toshiba Parent, the Parent Guaranty was a material inducement for Consumers Energy and DTE to enter into the Contract.

199. The terms of the Parent Guaranty require that Toshiba Parent immediately, upon Consumers Energy's and DTE's first demand in writing, perform or take necessary steps to achieve performance in full of such terms and provisions. (Parent Guaranty § 2.)

200. The terms of the Parent Guaranty also require Toshiba Parent to indemnify Consumers Energy and DTE against all losses, damages, claims, costs, charges, and expenses arising from Toshiba's failure to perform or observe the Contract's terms, including Consumers Energy's and DTE's reasonable costs, expenses, and attorney fees incurred in enforcing its rights under the Contract and/or the Parent Guaranty. (Parent Guaranty § 2.)

201. The terms of the Parent Guaranty require that Toshiba Parent make any payment due, without set-off or counterclaim, upon first written demand. (Parent Guaranty § 4.)

202. On December 10, 2021, Consumers Energy and DTE sent a written demand for performance and indemnification to Toshiba Parent.

203. Toshiba Parent breached the terms of the Parent Guaranty by failing to perform or take necessary steps to achieve performance in full of the Contract's terms and provisions, and by failing to indemnify Consumers Energy and DTE.

204. As a result of Toshiba Parent's failure to perform or take necessary steps to achieve performance in full of the Contract's terms and provisions, and failure to indemnify Consumers Energy and DTE, Consumers Energy and DTE have suffered and will suffer damages, including, but not limited to, the significant expenses they have incurred and will incur to enforce the guaranty, to complete work on Units 1, 3, and 6, to remediate Toshiba's defective work, as well as the failure of Toshiba to provide the overhaul and upgrade that Toshiba promised to deliver in the Contract.

WHEREFORE, Consumers Energy and DTE request that judgment be entered against Toshiba Parent and that this Court order (1) Toshiba Parent to pay Consumers Energy and DTE all appropriate damages, including any damages owed by Toshiba; (2) Toshiba Parent to pay Consumers Energy's and DTE's costs and expenses incurred in enforcing its rights under the Contract, including bringing this suit; and (3) all other relief to which Consumers Energy and DTE now are entitled or hereafter may be entitled.

**PRAAYER FOR RELIEF**

WHEREFORE, Consumers Energy and DTE request that judgment be entered against Toshiba and Toshiba Parent and that this Court order (1) Toshiba and Toshiba Parent to pay Consumers Energy and DTE all appropriate damages, including all costs and expenses required to rectify Toshiba's defective work and all out-of-pocket costs that Consumers Energy and DTE have incurred; (2) Toshiba Parent to pay Consumers Energy's and DTE's costs and expenses incurred in enforcing its rights under the Contract, including bringing this suit; and (3) all other relief to which Consumers Energy and DTE now are entitled or hereafter may be entitled.

CONSUMERS ENERGY COMPANY  
and DTE ELECTRIC COMPANY

Dated: April 20, 2022

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